ii) an autocatalytic compound or group, said autocatalytic compound or group generating a protecting group removing product when said autocatalytic compound is activated by said catalyst; and

b) irradiating at least a part of said surface to remove said protecting group making the reactive functional group available for reaction with a synthesis intermediate.

2. (Twice Amended) The method recited in claim 1 wherein said radiation sensitive compound or group is a photosensitive compound or group.

3. (Twice Amended) The method recited in claim 1 wherein said autocatalytic compound or group is a member selected from the group consisting of a masked acid and pentafluorobenzoic acid.

12. (Amended) The method recited in claim 2 wherein said photosensitive compound or group is a member selected from the group consisting of a photoactivated catalyst, a photoactivated acid catalyst and toluenesulfonic acid.

14. (Amended) The method recited in claim 1 wherein said protecting group is 5' dimethoxytrityl.

15. (Amended) The method recited in claim 2 wherein said photosensitive compound or group and said autocatalytic compound or group are parts of the same compound.

52. (Amended) A method for removing a protecting group from a reactive functional group comprising the steps of:

a) forming a surface comprising

i) a photosensitive acid compound or group, the photosensitive acid, compound, or group producing a catalyst when irradiated, and

ii) an autocatalytic compound or group, the autocatalytic compound or group generating a protecting group removing product when the autocatalytic compound or group is activated by the catalyst; and

b) irradiating at least a part of said surface to remove said protecting group making the reactive functional group available for reaction with a synthesis intermediate.

53. (Amended) The method of claim 52 wherein the photosensitive acid compound or group is a photoactivated acid catalyst.

54. (Amended) The method of claim 52 wherein the autocatalytic compound or group is a member selected from the group consisting of a masked acid and pentafluorobenzoic acid.

57. (Amended) The method of claim 52 wherein the protecting group is an acid removable group.

58. (Amended) The method of claim 52 wherein the photosensitive acid, compound, or group is toluenesulfonic acid.

60. (Amended) The method of claim 52 wherein the protecting group is selected from the group consisting of dimethoxytrityl, tert-butylcarbamate, trifluoroacetyl, 9-fluorenylmethoxycarbonyl, isobutyrl, benzoyl, phenoxyacetyl, acetamidomethyl, acetyl, tert-amyloxycarbonyl, benzyl, benzyloxycarbonyl, 2-(4-biphenylyl)-2-propyloxycarbonyl, 2-bromobenzyloxycarbonyl, tert-butyl, tert-butyloxycarbonyl, 1-carbobenzoxamido-2,2,2-trifluoroethyl, 2,6-dichlorobenzyl, 2-(3,5-dimethoxyphenyl)-2-propyloxycarbonyl, 2,4-dinitrophenyl, dithiasuccinyl, formyl, 4-methoxybenzenesulfonyl, 4-methoxybenzyl, 4-methylbenzyl, o-nitrophenylsulfonyl, 2-phenyl-2-propyloxycarbonyl, alpha.-2,4,5-tetramethylbenzyloxycarbonyl, p-toluenesulfonyl, xanthenyl, benzyl ester, N-hydroxysuccinimide ester, p-nitrobenzyl ester, p-nitrophenyl ester, phenyl ester, p-nitrocarbonate, p-nitrobenzylcarbonate, trimethylsilyl and pentachlorophenyl ester.

70. (Amended) A method for removing a protecting group from a reactive functional group comprising the steps of:

a) forming a surface comprising

i) a synthesis intermediate having an acid removable protecting group, and

ii) a photosensitive acid, compound, or group, the photosensitive acid, compound, or group producing an acid when irradiated, and

b) irradiating at least a part of the surface with light to generate an acid and to remove the acid removable protecting group making the reactive functional group available for reaction with a synthesis intermediate or other compound.

71. (Amended) The method of claim 70 wherein the photosensitive acid, compound, or group is a photoactivated acid catalyst.

74. (Amended) The method of claim 70 wherein the photosensitive acid, compound, or group is toluenesulfonic acid.